

TRANSMISSION NETWORK AND FILTER THEREFORABSTRACT (FIG. 1 TO ACCOMPANY)

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A power transmission network (40) is disclosed which includes ~~input means (52) for the~~<sup>27</sup> input of telecommunication signals having carrier frequencies greater than 1MHz onto the network (40), and a ~~means for removing~~ similar speech and/or data signals from the network.

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Preferably a network conditioning element (52) is used which includes a low pass filter portion for filtering out a low frequency high amplitude mains power signal, and a coupling element for input and/or removal of telecommunication signals from the network. In this way both speech and data signals can be transmitted at carrier frequencies of greater than 1MHz along a standard electricity distribution and/or transmission network which when conditioned provides a larger available spectrum per unit length of network and greater transmission capacity than previously known. The quiescent noise level of the conditioned network is also much reduced thus permitting lower signal injection levels for a given signal-to-noise ratio and a consequential reduction in spurious radiation from the network.

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